CLAIMS

1. An emulsion comprising:

water;

hydrophilic particles; and

hydrophobic particles;

wherein the hydrophilic and hydrophobic particles form shells encapsulating a gas that are suspended in the water, said shells comprising an external layer of hydrophilic particles and an internal layer of hydrophobic particles adjacent to the layer of hydrophilic particles.

2. An emulsion according to claim 1 wherein hydrophilic particles dispersed in the water and form with the water a gel-like structure having filaments of hydrophilic particles to which water molecules adhere.

3. An emulsion according to claim 1 wherein the shells have a characteristic diameter in a range from about 1 micrometer to about 20 micrometers.

4. An emulsion according to claim 1 or wherein a relative concentration by weight of the hydrophobic particles in the emulsion is such that the emulsion does not tend to become a powder.

5. An emulsion according to claim 2 wherein a concentration by weight of hydrophobic particles in the emulsion is between 0.5% and 1.8%.

6. An emulsion according to claim 1 wherein the hydrophobic particles have a characteristic specific surface greater than about 100 m^2/g.

7. An emulsion according to claim 2 wherein the hydrophobic particles have a characteristic specific surface greater than about 100 m^2/g.

8. An emulsion according to claim 1 wherein a relative concentration by weight of the hydrophilic particles in the emulsion is about equal to K_{phil}/S_{phil} where S_{phil} is a characteristic specific surface of the hydrophilic particles and K_{phil} is a constant having a value between about 20 m^2/g and about 50 m^2/g.

9. An emulsion according to claim 8 wherein K_{phil} has a value between about 30 m^2/g and about 40 m^2/g.

10. An emulsion according to claim 1 wherein the hydrophilic particles have a characteristic specific surface greater than about 100 m^2/g.

11. An emulsion according to claim 8 wherein the hydrophilic particles have a characteristic specific surface greater than about 100 m^2/g.

12. An emulsion according to claim ~~9~~ wherein the hydrophilic particles have a characteristic specific surface greater than about 100 m^2/g.

13. An emulsion according to claim 1 wherein a characteristic diameter of the hydrophilic particles is between about 5 nm and about 150 nm.

14. An emulsion according to claim 2 wherein a characteristic diameter of the hydrophobic particles is between about 5 nm and about 150 nm.

15. An emulsion according to claim 1 wherein the hydrophilic particles comprise oxide particles having surfaces covered with polar radicals.

16. An emulsion according to claim 15 wherein the hydrophilic particles comprise a mix of hydrophilic particles, said mix comprising a first type of hydrophilic particles formed from particles based on a first oxide and at least one second type of hydrophilic particles formed from particles based on a second oxide different from the first oxide.

17. An emulsion according to claim 15 wherein the oxide particles are selected from the group consisting of SiO_2, Al_2O_3, TiO_2, Fe_2O_3 and MnO particles.

18. An emulsion according to claim 16 wherein the oxide particles are selected from the group consisting of SiO_2, Al_2O_3, TiO_2, Fe_2O_3 and MnO particles.

19. An emulsion according to claim 15 wherein the polar radicals are selected from the group consisting of OH, CA_2CO_3, $CUSO_4$ and $CASO_4$.

20. An emulsion according to claim 1 wherein the hydrophobic particles comprise oxide particles having surfaces covered with non-polar radicals.

21. An emulsion according to claim 20 wherein the hydrophobic particles comprise a mix of hydrophobic particles, said mix comprising a first type of hydrophobic particles formed from particles based on a first oxide and at least one second type of hydrophobic particles formed from particles based on a second oxide different from the first oxide.

22. An emulsion according to claim 20 wherein the oxide particles are selected from the group consisting of SiO_2, Al_2O_3, TiO_2, Fe_2O_3 and MnO particles. .

23. An emulsion according to claim 1 wherein the gas is air.

24. An emulsion according to claim 1 wherein the gas is ozone.

25. An emulsion according to claim 1 wherein a substance beneficial for skin care is present in the water.

26. An emulsion according to claim 25 wherein the substance is an oil.

27. An emulsion according to claim 25 wherein the substance is vitamin A.

28. An emulsion according to claim 25 wherein the substance is beta carotine.

29. A powder comprising:

water;

hydrophilic particles; and

hydrophobic particles;

wherein the water is encapsulated in shells comprising an external layer of hydrophobic particles and an internal layer of hydrophilic particles adjacent to the layer of hydrophobic particles.

30. A powder according to claim 29 wherein hydrophilic particles are dispersed in the encapsulated water and form with the water a gel-like structure having filaments of hydrophilic particles to which water molecules adhere.

31. A powder according to claim 29 wherein the hydrophobic particles have a characteristic specific surface greater than about 100 m^2/g.

32. A powder according to claim 30 wherein the hydrophobic particles have a characteristic specific surface greater than about 100 m^2/g.

33. A powder according to claim 29 wherein a relative concentration C_{phil} by weight of the hydrophilic particles in the powder satisfies an equation $C_{phil} = K_{phil}/S_{phil}$ where S_{phil} is a characteristic specific surface of the hydrophilic particles and K_{phil} is a constant having a value between about 20 m^2/g and about 50 m^2/g.

34. A powder according to claim 33 wherein K_{phil} has a value between about 30 m^2/g and about 40 m^2/g.

35. A powder according to claim 29 wherein the hydrophilic particles have a specific surface greater than about 100 m^2/g.

36. A powder according to claim 33 wherein the hydrophilic particles have a specific surface greater than about 100 m^2/g.

37. A powder according to claim 34 wherein the hydrophilic particles have a specific surface greater than about 100 m^2/g.

38. A powder according to claim 29 wherein a characteristic diameter of hydrophilic particles is between about 5 nm and about 150 nm.

39. A powder according to claim 30 wherein a characteristic diameter of hydrophilic particles is between about 5 nm and about 150 nm.

40. A powder according to claim 29 wherein the shells have a characteristic average diameter in a range from about 1 micrometer to about 20 micrometers.

41. A powder according to claim 30 wherein the shells have a characteristic average diameter in a range from about 1 micrometer to about 20 micrometers.

42. A powder according to claim 29 wherein the hydrophilic particles comprise oxide particles having surfaces covered with non-polar radicals.

43. A powder according to claim 42 wherein the hydrophilic particles comprise a mix of hydrophilic particles, said mix comprising a first type of hydrophilic particles formed from particles based on a first oxide and at least one second type of hydrophilic particles formed from particles based on a second oxide different from the first oxide.

44. A powder according to claim 42 wherein the oxide particles are selected from the group consisting of SiO_2, Al_2O_3, TiO_2, Fe_2O_3 and MnO particles.

45. A powder according to claim 42 wherein the polar radicals are selected from the group consisting of OH, CA_2CO_3, $CUSO_4$ and $CASO_4$.

46. A powder according to claim 29 wherein the hydrophobic particles comprise oxide particles having surfaces covered with non-polar radicals.

47. A powder according to claim 46 wherein the hydrophobic particles comprise a mix of hydrophobic particles, said mix comprising a first type of hydrophobic particles formed from particles based on a first oxide and at least one second type of hydrophobic particles formed from particles based on a second oxide different from the first oxide.

48. A powder according to claim 46 wherein the oxide particles are selected from the group consisting of SiO_2, Al_2O_3, TiO_2, Fe_2O_3 or MnO particles.

49. A powder according to claim 29 wherein a substance beneficial for skin care is present in the water.

50. A method according to claim 49 wherein the substance is an oil.

51. A method according to claim 49 wherein the substance is vitamin A.

52. A method according to claim 49 wherein the substance is beta carotine

53. A method of reducing wrinkling in a region of skin comprising:

forming a layer of an emulsion according to claim 1 on the region; and

waiting a sufficient period of time so that a portion of the water from the emulsion is absorbed by the region and the volume of the layer shrinks so that the layer transforms into a network of strands on the region, which network is anchored to the skin by attraction of hydrophilic and hydrophobic particles to the skin and tends to contract as water is absorbed from the emulsion.

54. A method according to claim 53 and comprising applying water to the region of skin after the network is formed so that the network absorbs water and expands and subsequently releases water to the skin and contracts again.

55. A method according to claim 53 and comprising applying a substance comprising a component that is absorbed by the network and the skin to the region of skin after the network is formed so that the network absorbs the component and expands and subsequently releases the component to the skin and contracts again.

56. A method according to claim 55 wherein the component is an oil.

57. A method according to claim 55 wherein the component is vitamin A.

58. A method according to claim 55 wherein the component is beta carotine.

59. A method of reducing wrinkling in a region of skin comprising:

applying a powder in accordance with claim 29 to the region so that shells in the powder rupture and release their water content and the released water, hydrophilic particles and hydrophobic particles in the ruptured cells form a layer on the region; and

waiting a sufficient period of time so that at least portion of water in the layer is absorbed by the region and the volume of the layer shrinks so that the layer transforms into a network of strands on the region, which network is anchored to the skin by attraction of hydrophilic and hydrophobic particles to the skin and tends to contract as water is absorbed from the network.

60. A method according to claim 59 and comprising applying water to the region of skin after the network is formed so that the network absorbs water and expands and subsequently releases water to the skin and contracts again.

61. A method according to claim ~~59~~ and comprising applying a substance comprising a component that is absorbed by the network and the skin to the region of skin after the network is formed so that the network absorbs the component and expands and subsequently releases the component to the skin and contracts again.

62. A method according to claim 61 wherein the component is an oil.

63. A method according to claim 61 wherein the component is vitamin A.

64. A method according to claim ~~61~~ wherein the component is beta carotine.

65. A method of forming an aqueous emulsion in which encapsulated pockets of gas are suspended in water comprising:

forming a solution of water and hydrophilic particles;

adding a quantity of hydrophobic particles to the solution to form a mixture;

causing the gas to be present in the mixture while causing the gas to cavitate so as to generate pockets of the gas in the mixture and wherein the quantity of hydrophobic particles added to the mixture is not sufficient to cause the cavitating mixture to form a powder.

66. A method of forming a powder comprising water, the method comprising:

forming a solution of water and hydrophilic particles;

adding a quantity of hydrophobic particles to the solution to form a mixture;

causing the gas to cavitate so that droplets of the water are encapsulated in shells of hydrophilic and hydrophobic particles and wherein the amounts of hydrophobic and

hydrophilic particles in the mixture are enough to form a sufficient number of shells so that substantially all the water in the mixture can be contained in encapsulated water droplets.